

## PATENT APPLICATION

3661

E20030040

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hui Zhang et. al

Serial No. 10/720,592

Filed: November 24, 2003

Assignee: ABB Research Ltd. et al.

For: AN INDUSTRIAL ROBOT WITH CONTROLLED FLEXIBILITY AND SIMULATED

FORCE FOR AUTOMATED ASSEMBLY

## TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment **Commissioner For Patents** P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed is an Information Disclosure Statement (IDS) for the above-identified application. The art cited in the IDS was listed in an International Search Report (ISR) for the PCT application corresponding to the U.S. application. The ISR is attached. A fee is not required for the IDS since the IDS is being filed before receipt of a first office action.

Respectfully submitted,

Group Art Unit:

**Docket Number:** 

Confirmation Number: 5029

Date: 8 16 06

Reg. No. 26,984 Attorney for Applicant

ABB Inc.

Legal Department - 4U6 29801 Euclid Avenue Wickliffe, OH 44092

440-585-7840

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Substitute for form 1449/PTO

Sheet 1

## RADENAR! INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 2

Complete if Known			
Application Number	10/720,592		
Filing Date	November 24, 2003		
First Named Inventor	Hui Zhang		
Art Unit	3661		
Examiner Name			
Attorney Docket Number	E20030040		

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (ft known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear
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Examiner Cite Initials* No.1	FOREIG Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (07-06)

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Attorney Docket Number

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Sheet

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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		NIRUT NAKSUIK: "The Implementation of a Natural Admittance Controller on an Industrial Robot" January 2000, Case Western Reserve University,	
		Department of Electrical Engineering and Computer Science, Cleveland, Ohio, XP002345462	
		SIDDHARTH R CHHATPAR: "Experiments in Force-Guided Robotic Assembly" January 1999, Case Western Reserve University,	
		Department of Electrical Engineering and Applied Science, Cleveland, Ohio, XP002345323	
		CHENG ZHANG: "Towards a Practical Robotic System for Industrial Mechanical Assembly" January 2001, Case Western Reserve University	
		Department of Electrical Engineering and Applied Science, Cleveland, Ohio, XP002345463	
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Examiner	Date	
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